

CLAIMS

1. A compound consisting of an amino acid sequence which consists of at least three consecutive amino acids of the amino acid sequence Val-Val-Ile-Ala-Thr-Val-Ile-Val-Ile-Thr-Leu-Val-Met-Leu-Lys-Lys-Lys (SEQ ID NO:1) including Leu at position 11, wherein, between the Leu and one or both amino acids located immediately before or after it, the peptide bond, -CO-NH- , is replaced with a hydroxyethylene group, $\text{-CHOH-CH}_2\text{-}$, while any other inter amino-acid bond is a peptide bond, wherein the N terminus has an alkyloxycarbonyl group based on C1-10 alkyl that may carry phenyl or naphthyl as a substituent group, wherein the C terminus is converted to an alkyl ester or alkyl amide based on C1-10 alkyl that may carry phenyl or naphthyl as a substituent group, and wherein the hydrogen atom of the hydroxyl group of the Thr at position 10 may be replaced with a C1-4 hydrophobic group or a Z group, or a pharmaceutically acceptable salt thereof.

2. The compound of claim 1, wherein the Leu at position 14 of the amino acid sequence is replaced with a hydrophobic amino acid that may be Ile or with Pro, the Leu at position 11 is replaced with a hydrophobic amino acid that may be Ile, or the Thr at position 10 is replaced with Ser, or the Ile at position 9 is replaced with a hydrophobic amino acid that may be Leu, or a pharmaceutically acceptable salt thereof.

3. A compound consisting of an amino acid sequence which consists of 3, 4, 5 or 6 consecutive amino acids of the amino acid sequence Ile-Thr-Leu-Val-Met-Leu (SEQ ID NO:2) including the Leu at position 3, wherein, between the Leu and one or both amino acids located immediately before or after it, the peptide bond, -CO-NH- , is replaced with a hydroxyethylene group, $\text{-CHOH-CH}_2\text{-}$, while any other inter amino-acid bond is a peptide bond, wherein the N terminus has an alkyloxycarbonyl group based on C1-10 alkyl that may carry phenyl or naphthyl as a substituent group, wherein the C terminus is converted to an alkyl ester or alkyl amide based on C1-10 alkyl that may carry phenyl or naphthyl as a substituent group, and wherein the hydrogen atom of the hydroxyl group of the Thr may be replaced with a C1-4 hydrophobic group or a Z group, or a pharmaceutically acceptable salt thereof.

4. A compound consisting of the amino acid sequence Leu-Val-Met-Leu (SEQ ID NO:3), wherein, between the Leu at position 1 and the

Val at position 2, the peptide bond, -CO-NH-, is replaced with a hydroxyethylene group, -CHOH-CH₂-, while any other inter amino-acid bond is a peptide bond, wherein the N terminus has an alkyloxycarbonyl group based on C1-10 alkyl that may carry phenyl or naphthyl as a substituent group, wherein the C terminus is converted to an alkyl ester or alkyl amide based on C1-10 alkyl that may carry phenyl or naphthyl as a substituent group, or a pharmaceutically acceptable salt thereof.

5. A compound consisting of the amino acid sequence Thr-Leu-Val-Met (SEQ ID NO:4), wherein, between the Thr at position 1 and Leu at position 2, the peptide bond, -CO-NH-, is replaced with a hydroxyethylene group, -CHOH-CH₂-, while any other inter amino-acid bond is a peptide bond, wherein the N terminus has an alkyloxycarbonyl group based on C1-10 alkyl that may carry phenyl or naphthyl as a substituent group, wherein the C terminus is converted to an alkyl ester or alkyl amide based on C1-10 alkyl that may carry phenyl or naphthyl as a substituent group, and wherein the hydrogen atom of the hydroxyl group of the Thr may be replaced with a C1-4 hydrophobic group or a Z group, or a pharmaceutically acceptable salt thereof.

6. The compound of claim 3, wherein the Leu located immediately before the Val is replaced with a hydrophobic amino acid that may be Ile, or the Leu at the N terminus is replaced with a hydrophobic amino acid that may be Ile or with Pro, or a pharmaceutically acceptable salt thereof.

7. The compound of claim 4, wherein the Leu located immediately before the Val is replaced with a hydrophobic amino acid that may be Ile, or the Leu at the N terminus is replaced with a hydrophobic amino acid that may be Ile or with Pro, or a pharmaceutically acceptable salt thereof.

8. The compound of claim 5, wherein the Leu located immediately before the Val is replaced with a hydrophobic amino acid that may be Ile, or a pharmaceutically acceptable salt thereof.

9. The compound of claim 3, wherein the Thr is replaced with Ser, or a pharmaceutically acceptable salt thereof.

10. The compound of claim 3, wherein the Ile is replaced with a hydrophobic amino acid that may be Leu, or a pharmaceutically acceptable salt thereof.

11. The compound of claim 5, wherein the Thr is replaced with Ser, or

a pharmaceutically acceptable salt thereof.

12. The compound of one of claims 1 to 11, wherein the alkyloxycarbonyl group is a Boc group, or a pharmaceutically acceptable salt thereof.

13. The compound of one of claims 1 to 12, wherein a polypeptide consisting of Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg (SEQ ID NO:5) is fused instead of the alkyloxycarbonyl group, or a pharmaceutically acceptable salt thereof.

14. A gamma-secretase inhibitor comprising the compound of one of claims 1 to 13.

15. An antibody to the compound of one of claims 1 to 13.

16. Use of the compound of one of claims 1 to 13 as a gamma-secretase inhibitor in the screening of inhibitors of amyloid protein production.